



WILLIAM T. PECORA AWARD

Jeff Dozier

**For scientific excellence and leadership in snow hydrology,
remote sensing, and information systems**

Dr. Jeff Dozier is preeminent in snow hydrology and the remote sensing of snow properties. He has pioneered in developing physically-based approaches to analyze remote sensing data, merging hydrological, hydrochemical, and remote sensing data to address basin-scale hydrological questions, and integrating environmental science with computer science and technology. Through his leadership and scientific findings, he has had great influence on national and international investments in satellite sensors and data and information systems.

Dr. Dozier's early work on the radiative properties of snow and their effects on snow energy and mass balance was seminal. He worked mainly in alpine areas, where the storage and melting of snow dominate the hydrologic cycle and have enormous societal significance because of their influence on regional water resources. His early recognition of the potential of remote sensing for measuring snowpack properties and energy balance in remote mountainous regions was accompanied by the development of physically-based approaches to the analysis of remotely sensed data. These approaches involved rigorous examination of the physics of the sensors and of how the radiation they record interacts with the atmosphere, the ice crystals and liquid water in the snowpack, and the surrounding terrain. He has made important scientific contributions to the Landsat and Earth Observing System (EOS) programs and to imaging spectrometry, radar remote sensing, thermal infrared data interpretation, and terrain correction.

Realizing that sophisticated, computerized information systems would be required to manage the vast amounts of information satellite sensors collect, Dr. Dozier helped to develop the field of environmental informatics. He used his extensive knowledge of sensors, computing technology, and user needs to make invaluable contributions to the design and implementation of measurement and information systems. He was extremely influential as Senior Project Scientist for EOS. His insights and recommendations regarding the EOS Data and Information System were major factors in its ultimate success. Dr. Dozier founded the Donald Bren School of Environmental Science and Management at the University of California, Santa Barbara, and served as its first Dean. His graduate students have become important figures in remote sensing, hydrology, and information technology.

In recognition of his scientific contributions and leadership in advancing Earth remote sensing technologies and environmental information systems, the National Aeronautics and Space Administration and the Department of the Interior take great pleasure in presenting the 2005 William T. Pecora Award to Dr. Jeff Dozier.

Administrator
National Aeronautics and Space Administration

Secretary
Department of the Interior